GRAPHIC EQUALIZER

KGC-7043

SERVICE MANUAL

KENWOOD

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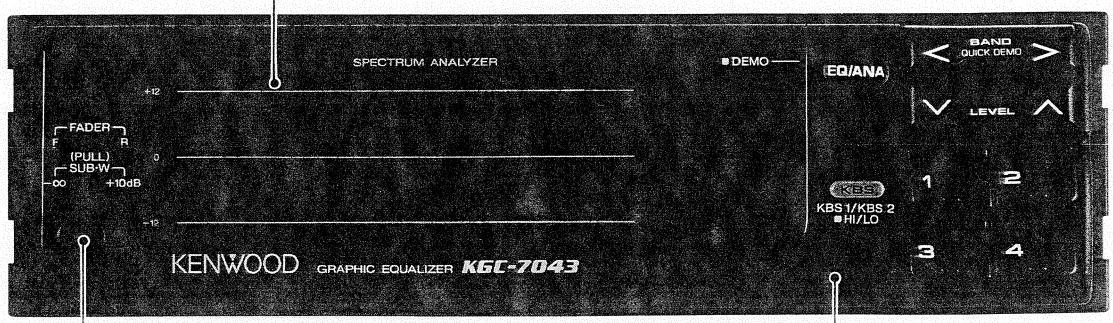
B51-6813-00(MC)1754

Front glass
(B10-1598-03)

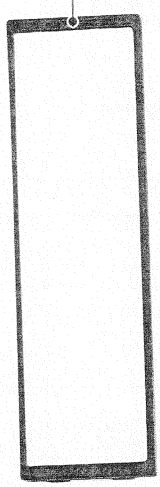


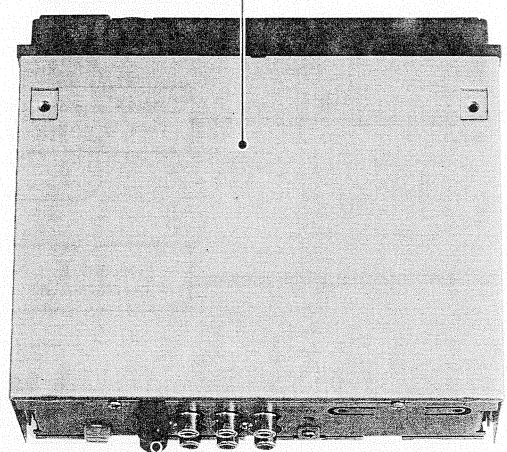
Knob (FAD)
(K23-1010-34)

Panel ass'y
(A64-0500-03)

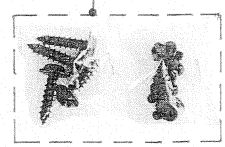
Metallic cabinet
(A01-2589-02)

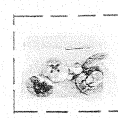
Escutcheon
(B07-2027-05)



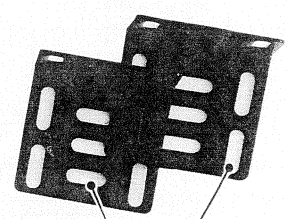


Screw set
(N99-1623-05)

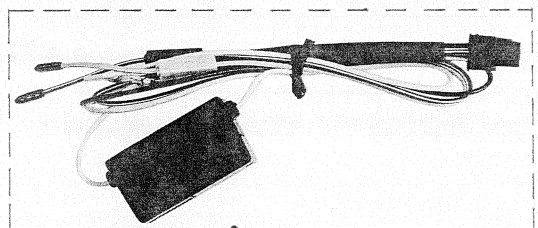




Screw set
(N99-1559-05)



Insulating cover
(F29-0049-05)



Mounting hardware
(J21-3437-04)

DC cord
(E30-3849-15)

KGC-7043

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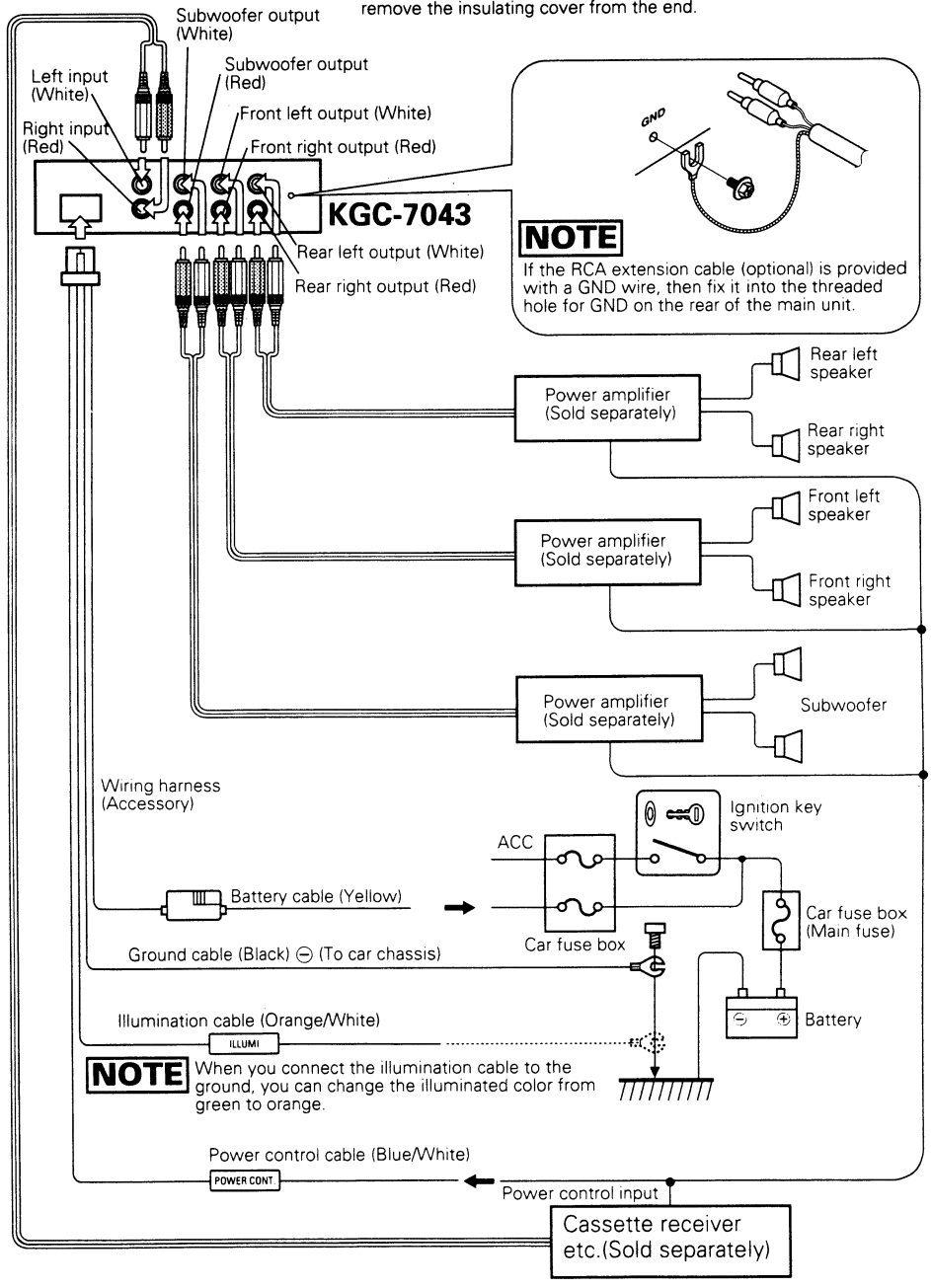
SPECIFICATIONS.....Back cover

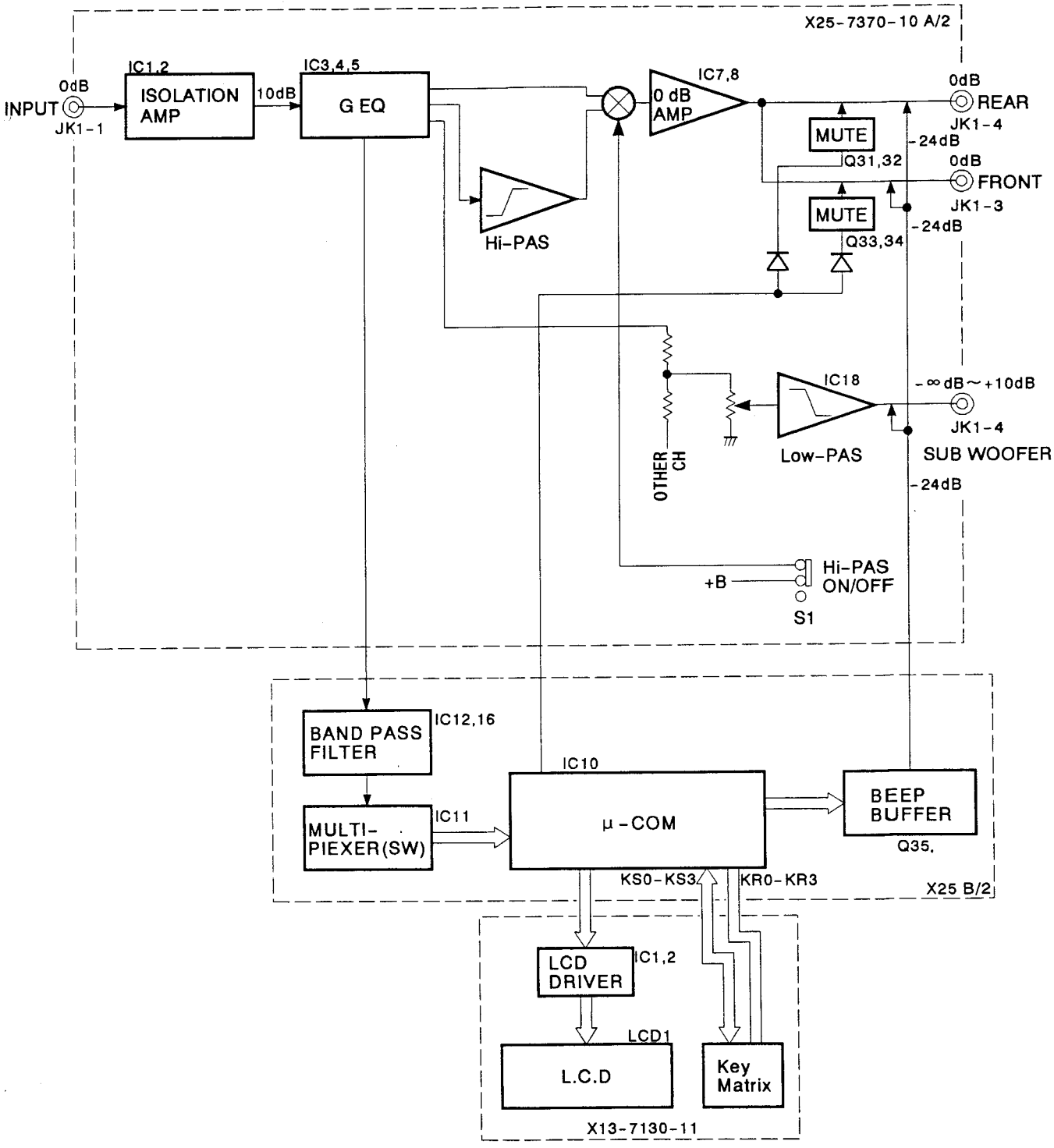
CONNECTIONS

NOTE

If you connect an illumination cable or a power control cable, first remove the insulating cover from the end.


Subwoofer output (White)
Subwoofer output (Red)
Left input (White)
Right input (Red)
Front left output (White)
Front right output (Red)
KGC-7043
Rear left output (White)
Rear right output (Red)
GND
NOTE
If the RCA extension cable (optional) is provided with a GND wire, then fix it into the threaded hole for GND on the rear of the main unit.
Power amplifier (Sold separately)
Rear left speaker
Rear right speaker
Power amplifier (Sold separately)
Front left speaker
Front right speaker
Power amplifier (Sold separately)
Subwoofer
Wiring harness (Accessory)
Ignition key switch
ACC
Battery cable (Yellow)
Car fuse box
Car fuse box (Main fuse)
Ground cable (Black) ⊖ (To car chassis)
Battery
Illumination cable (Orange/White)
ILLUMI
NOTE
When you connect the illumination cable to the ground, you can change the illuminated color from green to orange.
Power control cable (Blue/White)
POWER CONT
Power control input
Cassette receiver etc.(Sold separately)

BLOCK DIAGRAM



CIRCUIT OPERATION DESCRIPTION

1. Functions of Components

Electric Unit (X25-7370-10)

Component	Name	Purpose, Function	Operation, Condition, Compatibility
IC1, 2	NJM4580ED	Isolation amp	
IC3	LC7523M	Electronic volume for GE	Controls the electronic volume of graphic equalizer bands from 60 Hz to 1 kHz.
IC4	LC7523M	Electronic volume for GE	Controls the electronic volume of graphicequalizer bands from 2 to 16 kHz.
IC5	NJM4565MD	Graphic equalizer buffer	Buffer of the equalizer.
IC7, 8	NJM4565MD	Output buffer, surround switching opamp	The surround function is switched ON/OFF by switching the opamp.
IC9	PST520D-T	Reset IC	
IC10	μPD75108CW-X03	μ-COM	
IC11	μPD4052BG	Channel switching	Multiplexer IC which scans band pass filter of 60 Hz to 500 Hz with X channel and band pass filter of 1 kHz to 8 kHz with Y channel and sends data to the A/D port of μ-COM.
IC12	NJM4565M	Band-pass filter	Band pass filter of 120 Hz and 250 Hz
IC13	NJM4565M	Band-pass filter	Band pass filter of 60 Hz and 500 Hz.
IC14	NJM4565M	Band-pass filter	Band pass filter of 1 kHz and 4 kHz.
IC15	NJM4565M	Band-pass filter	Band pass filter of 2 kHz and 8 kHz.
IC16	NJM4565M	Band-pass filter	Band pass filter of 16 kHz and buffer of spectrum analyzer.
IC17	NJM4565MD	1/2 Ref power supply	Stabilizes the mid-point potential of the opamp.
Q1	2SB1370	Audio AVR	
Q2	DTB123YK	+B switching	Switch for band pass filter cinq supply utg.
Q3	2SC2412K	Audio AVR	
Q4, 5	2SC2412KLN	60 Hz filter	Simulated inductor of 60 Hz equalizer filter.
Q6, 7	2SC2412KLN	120 Hz filter	Simulated inductor of 120 Hz equalizer filter.
Q8, 9	2SC2412KLN	250 Hz filter	Simulated inductor of 250 Hz equalizer filter.
Q10, 11	2SC2412KLN	380 Hz filter	Simulated inductor of 380 Hz equalizer filter.
Q12, 13	2SC2412KLN	500 Hz filter	Simulated inductor of 500 Hz equalizer filter.
Q14, 15	2SC2412KLN	750 Hz filter	Simulated inductor of 750 Hz equalizer filter.
Q16, 17	2SC2412KLN	1 kHz filter	Simulated inductor of 1 kHz equalizer filter.
Q18, 19	2SC2412KLN	2 kHz filter	Simulated inductor of 2 kHz equalizer filter.
Q20, 21	2SC2412KLN	4 kHz filter	Simulated inductor of 4 kHz equalizer filter.
Q22, 23	2SC2412KLN	8 kHz filter	Simulated inductor of 8 kHz equalizer filter.
Q24, 25	2SC2412KLN	16 kHz filter	Simulated inductor of 16 kHz equalizer filter.
Q26	2SC2412K	Q2 driver	Audio muting of center preout.
Q27	2SD1757K	Audio muting	Audio muting of sub-woofer preout.
Q28	2SB941	LAMP AVR	
Q29	2SC2412K	LAMP AVR	
Q31 ~ 34	2SD1757K	Audio muting	
Q35	2SC2412K	Beep buffer	Amplifies the beep signal from μ-COM.
Q36	2SA1428	5 V AVR	
Q37	2SC1740S	5 V AVR	

CIRCUIT OPERATION DESCRIPTION

Component	Name	Purpose, Function	Operation, Condition, Compatibility
Q38	2SC2412K	Lamp switching (amber)	When the amber or green port of μ-COM goes "H", these absorb the current for the amber or green lamp LED to light it.
Q39	2SD1858	Lamp switching (amber)	
Q40	2SC2412K	Lamp switching (green)	When the amber or green port of μ-COM goes "H", these absorb the current for the amber or green lamp LED to light it.
Q41	2SD1858	Lamp switching (green)	
Q44	DTC124EK	P-CON detector	Detects P.CON from μ-COM. Active "L".
Q45	2SA1037K	Spectrum analyzer H/L switching	Switches the spectrum analyzer between H/L by switching the gain of IC16.
Q48	DTA144EK	Muting buffer	Buffer of 5 V for muting (center).
Q50	DTC144EK	Lamp VR switching	
Q51	DTA114EK	Lamp VR switching	
Q52	DTC124EK	ILLUM detector	Detects ILLUM from μ-COM. Active "L".
Q53	2SD1858	Lamp control	Controls ON/OFF of the LCD back light.
Q54	2SC1740S	Lamp control	Controls ON/OFF of the LCD back light.
Q55	2SD1055F	Lamp control	Controls ON/OFF of the LCD back light.

Switch Unit (X13-7130-11)

Component	Name	Purpose, Function	
IC1, 2	LC7582A	LCD driver	

2. Key Description

Key Matrix

	KR0	KR1	KR2	KR3
KS0			EQ/ANA	
KS1	①	②	③	④
KS2	◀	▶	▲	▼
KS3	KBS			

The key matrix of this μ-COM uses the open-drain system to reduce cost, and inputs the key signals with the Active "L" logic.

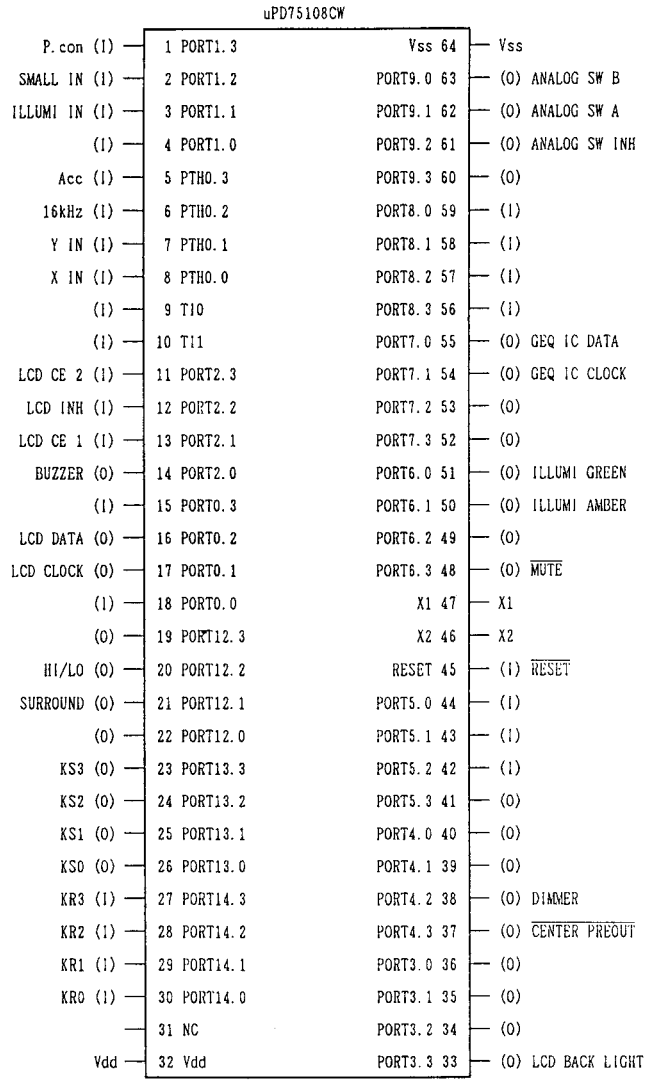
Key Return : Pull-up resistor option

Key Scan : Sets the scanning port to "L".

CIRCUIT OPERATION DESCRIPTION

3. Microcomputer: μPD75108CW-X03 (X25-7370-10: IC10)

3.1 Pin Layout



CIRCUIT OPERATION DESCRIPTION

3.2 Pin Description

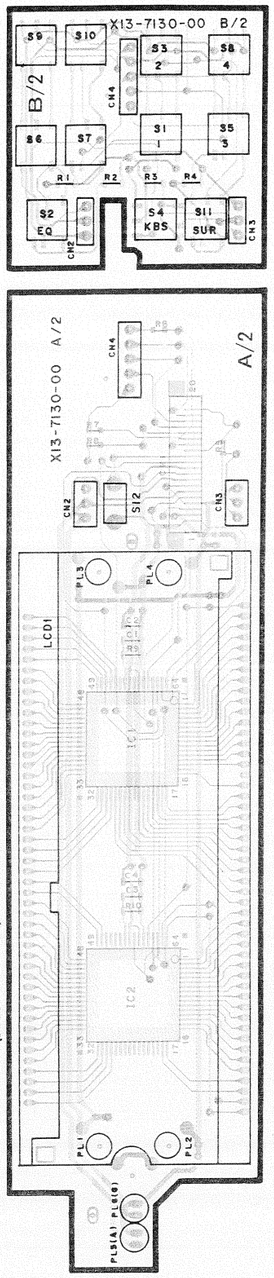
Pin No.	Pin Name	I/O	Signal Name	Pin Type	Description
1	P13	I	Pcon	Schmitt trigger	Input from the source unit.
2	P12	I	SMALL IN	Schmitt trigger	SMALL input from the vehicle.
3	P11	I	ILLUM IN	Schmitt trigger	Illumination signal input from the head unit.
4	P10	I	Not used	Schmitt trigger	Connected to GND.
5	PTH03	I	Acc	Comparator	Acc detection.
6	PTH02	I	IN_{16K}	Comparator	16 kHz analog signal input.
7	PTH01	I	Y IN	Comparator	Input from the multiplexer output.
8	PTH00	I	X IN	Comparator	Input from the multiplexer output.
9	TI0	I	Not used	Schmitt trigger	Connected to GND.
10	TI1	I	Not used	Schmitt trigger	Connected to GND.
11	P23	O	LCD CE 2	Push-pull	LCD driver Chip Enable 2.
12	P22	O	LCD INH	Push-pull	LCD driver display inhibit signal.
13	P21	O	LCD CE 1	Push-pull	LCD driver Chip Enable 1.
14	P20	O	BUZZER	Push-pull	Buzzer output.
15	P03	I	Not used	Schmitt trigger	Connected to GND.
16	P02	O	LCD DATA	Push-pull	Data line of LCD driver.
17	P01	O	LCD CLK	Push-pull	Clock line of LCD driver.
18	P00	I	Not used	Schmitt trigger	Connected to GND.
19	P123	O	Not used	Open-drain	Open.
20	P122	O	H/L	Open-drain	Spectrum analyzer sensitivity switching.
21	P121	O	MODE 0	Open-drain	Surround switching.
22	P120	O	Not used	Open-drain	Connected to GND.
23	P133	O	KS3	Open-drain	Key Scan 3.
24	P132	O	KS2	Open-drain	Key Scan 2.
25	P131	O	KS1	Open-drain	Key Scan 1.
26	P130	O	KS0	Open-drain	Key Scan 0.
27	P143	I	KR3	Buffer	Key Return 3.
28	P142	I	KR2	Buffer	Key Return 2.
29	P141	I	KR1	Buffer	Key Return 1.
30	P140	I	KR0	Buffer	Key Return 0.
31	NC		NC		Open.
32	V_{DD}	I	V_{DD}		Positive power input.

CIRCUIT OPERATION DESCRIPTION

Pin No.	Pin Name	I/O	Signal Name	Pin Type	Description
33	P33	O	LCD LIGHT	Push-pull	LCD back light.
34	P32	O	Not used	Push-pull	Connected to GND.
35	P31	O	Not used	Push-pull	Connected to GND.
36	P30	O	Not used	Push-pull	Connected to GND.
37	P43	O	$\overline{\text{MUTE}}$	Push-pull	Center Preout muting output.
38	P42	O	DIMMER	Push-pull	Dimmer output.
39	P41	O	Not used	Push-pull	Connected to GND.
40	P40	O	Not used	Push-pull	Connected to GND.
41	P53	I	Not used	Buffer	Connected to GND.
42	P52	I	Not used	Buffer	Connected to GND.
43	P51	I	Not used	Buffer	Connected to GND.
44	P50	I	Not used	Buffer	Connected to GND.
45	$\overline{\text{RESET}}$	I	RESET		Reset signal input.
46	X2				X'tal oscillator connection terminal 2.
47	X1				X'tal oscillator connection terminal 1.
48	P63	O	$\overline{\text{MUTE 1}}$	Push-pull	Muting output.
49	P62	O	Not used	Push-pull	Connected to GND.
50	P61	O	AMBER	Push-pull	Illumination Amber output.
51	P60	O	GREEN	Push-pull	Illumination Green output.
52	P73	O	Not used	Push-pull	Pulled-up.
53	P72	O	Not used	Push-pull	Pulled-up.
54	P71	O	EVOL CLK	Push-pull	Clock line of electronic volume IC.
55	P70	O	EVOL DATA	Push-pull	Data line of electronic volume IC.
56	P83	I	Not used	Buffer	Connected to GND.
57	P82	I	Not used	Buffer	Connected to GND.
58	P81	I	Not used	Buffer	Connected to GND.
59	P80	I	Not used	Buffer	Connected to GND.
60	P93	O	Not used	Push-pull	Connected to GND.
61	P92	O	ANALOG INH	Push-pull	Analog switch output inhibit signal.
62	P91	O	ANALOG A	Push-pull	Analog switch switching output A.
63	P90	O	ANALOG B	Push-pull	Analog switch switching output B.
64	Vss	I	Vss		GND potential terminal.

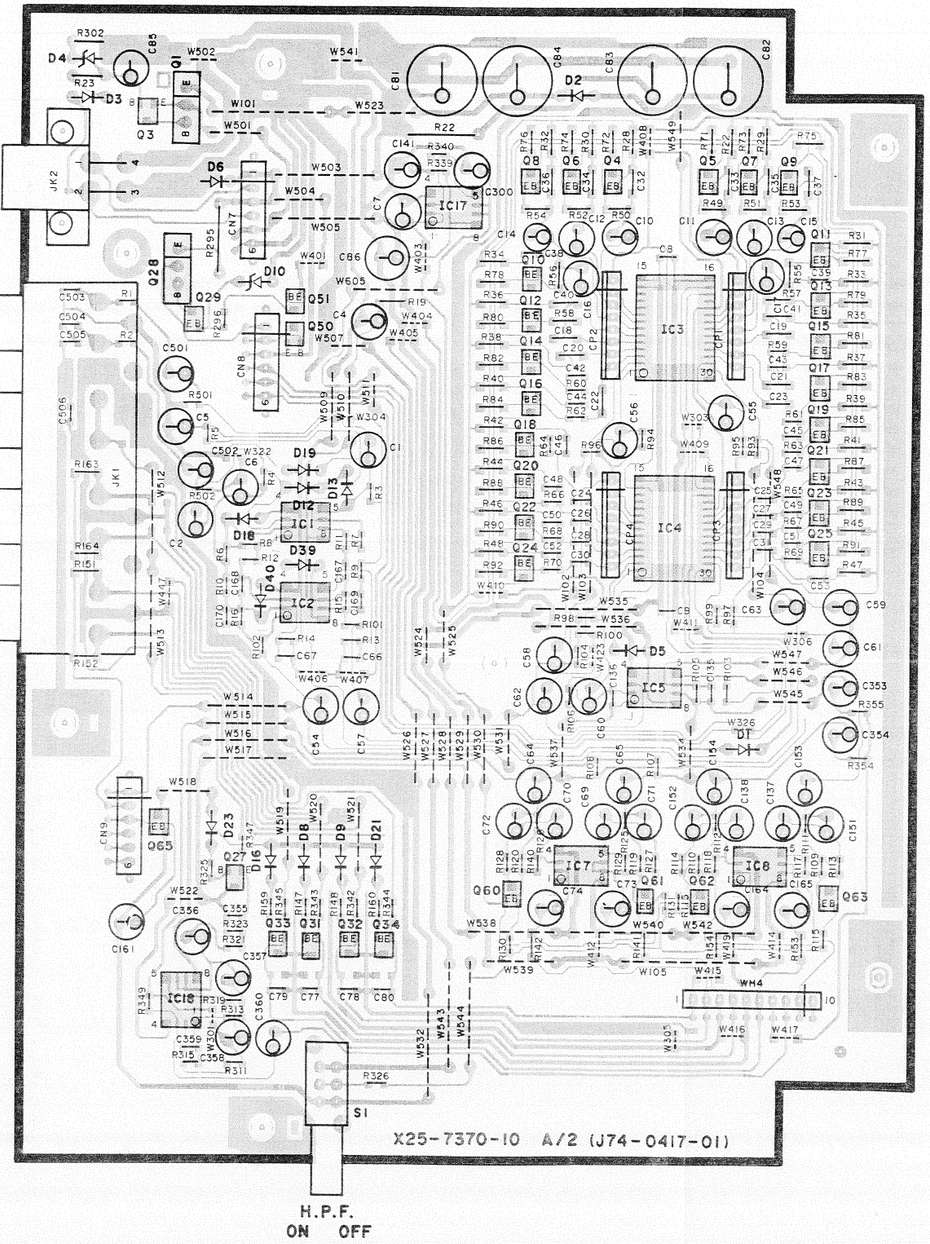
PC BOARD (Component side view)

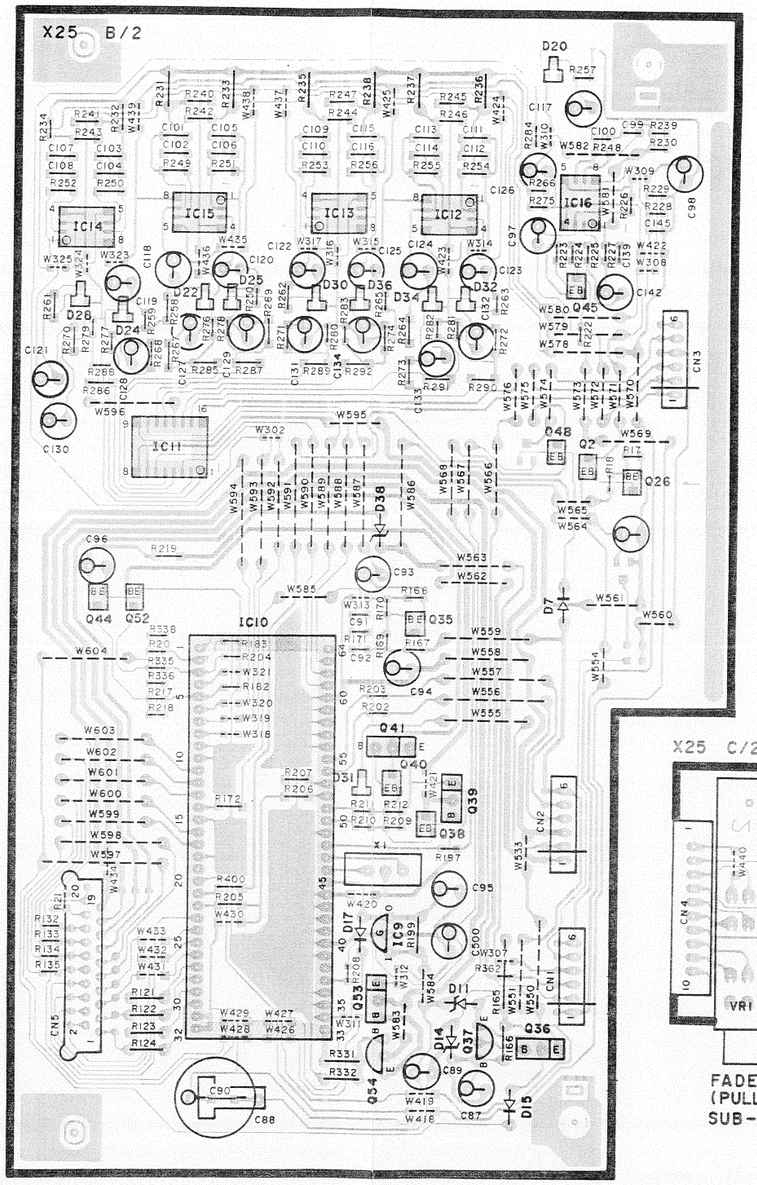
(X13-7130-11) SWITCH UNIT



(X13-7130-11) SWITCH UNIT

ELECTRIC UNIT (X25-7370-10)

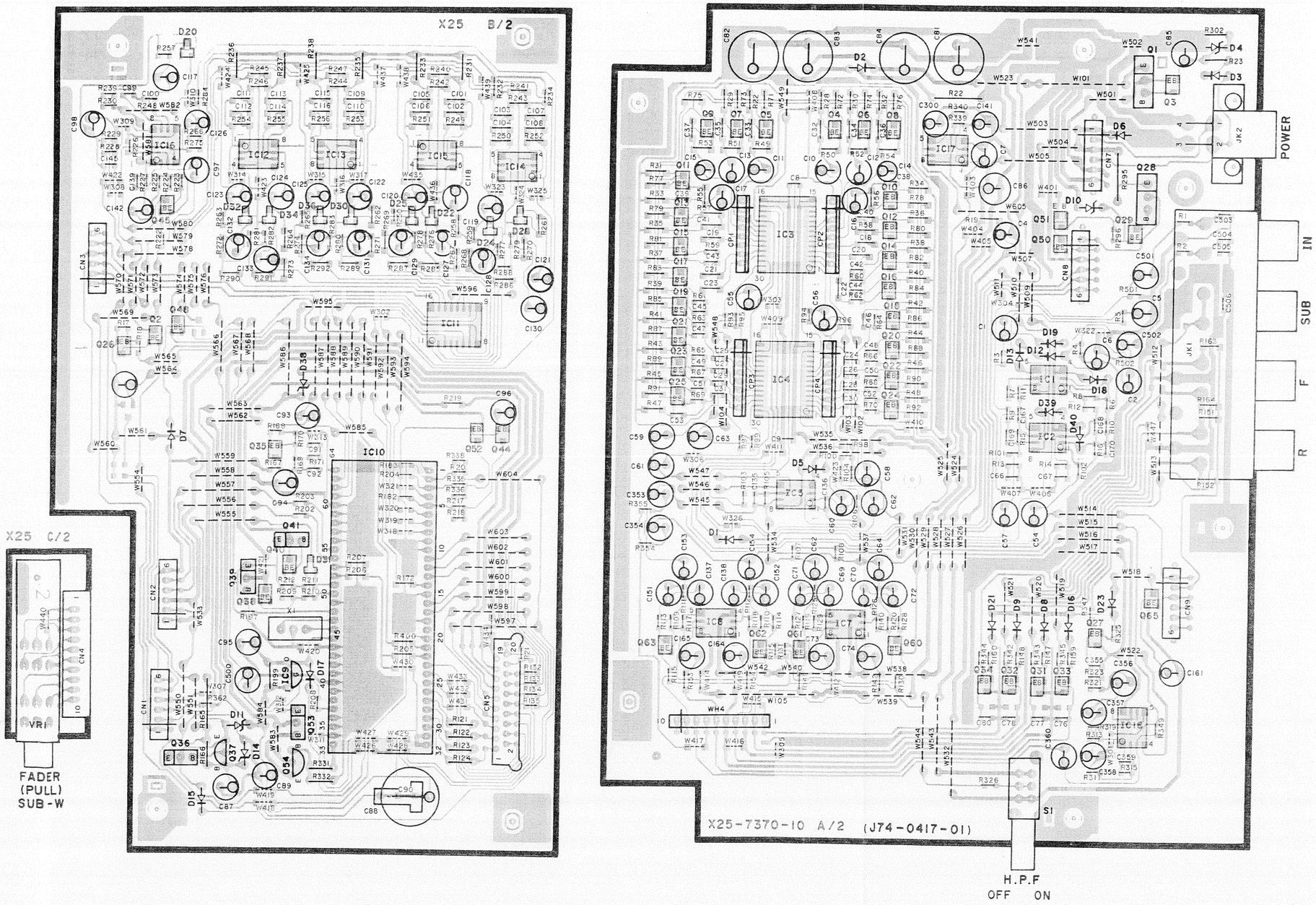




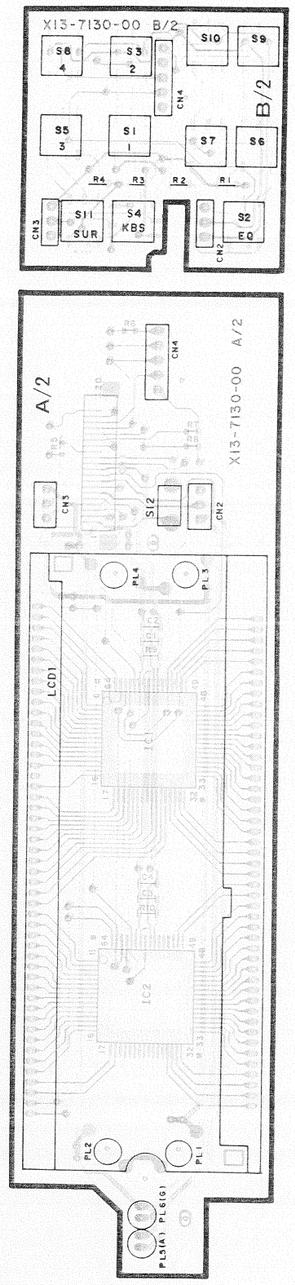
 Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (Foil side view)

ELECTRIC UNIT (X25-7370-10)



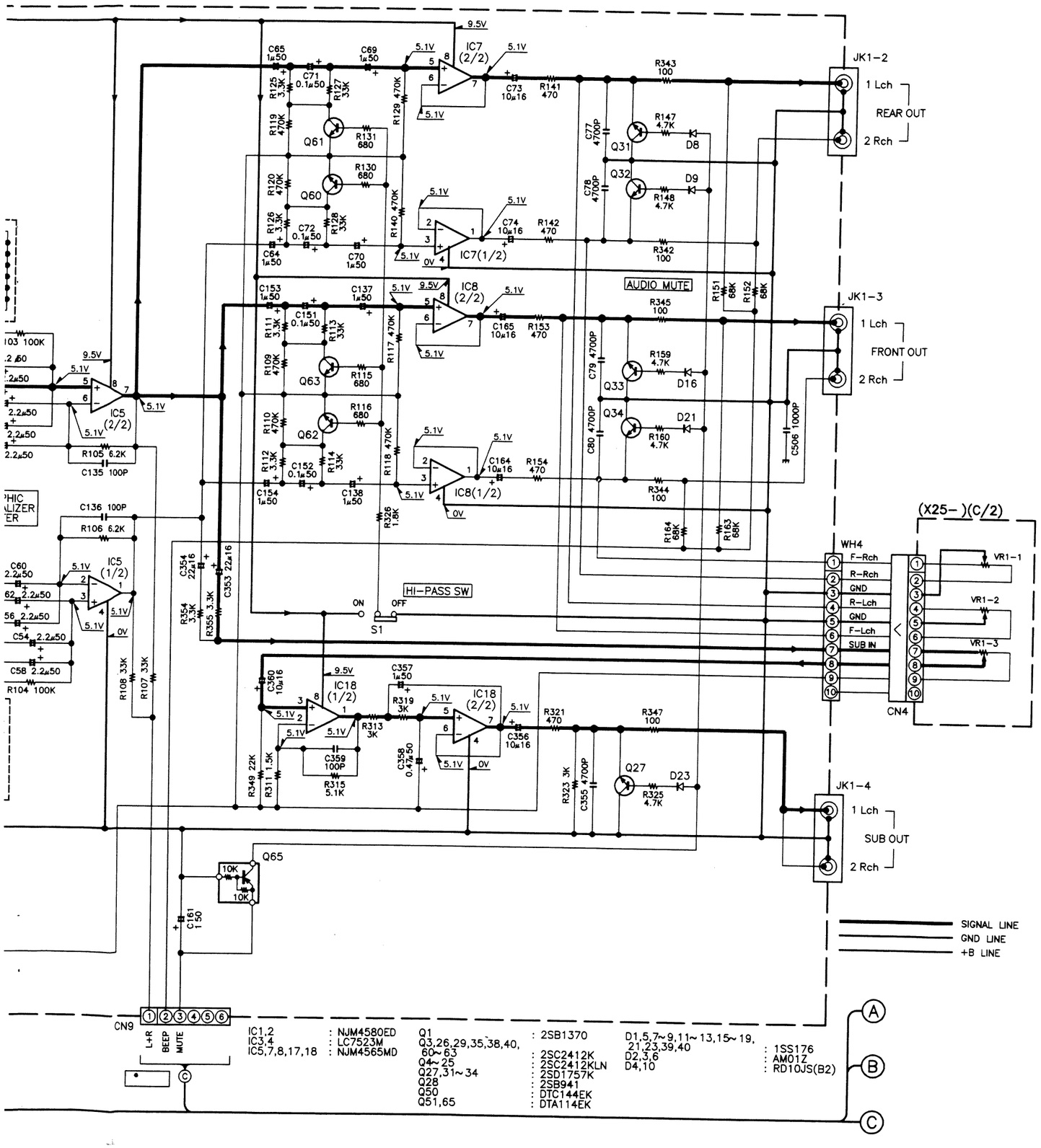
(X13-7130-11) SWITCH UNIT



Refer to the schematic diagram for the values of resistors and capacitors.

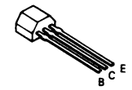
(X25-7370-10)(A/2)

INPUT
JK1-1
Lch 1
Rch 2
JK2
ILL
P-CON
GND
B/U
IC1,2 ISOLATION AMP
1/2 REF POWER SUPPLY
IC3 GRAPHIC EQUALIZER ELECTRIC VOLUME
IC4 GRAPHIC EQUALIZER ELECTRIC VOLUME
IC5 GRAPHIC EQUALIZER BUFFER
Q1,3 AUDIO AVR
Q28,29 LAMP AVR
Q50,51 LAMP SWITCHING
50Hz FILTER
120Hz FILTER
250Hz FILTER
350Hz FILTER
500Hz FILTER
750Hz FILTER
1KHz FILTER
2KHz FILTER
4KHz FILTER
6KHz FILTER
15KHz FILTER
CN7 B/U ILLUM B/U P-COM 9V A.GND
CN8 LAMP+B ILL CONT D.GND E-VOL CLK E-VOL DAT 5V
CN9

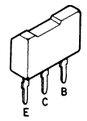


IC1,2	: NJM4580ED	
IC3,4	: LC7523M	
IC5,7,8,17,18	: NJM4565MD	
Q1	: 2SB1370	
Q3,26,29,35,38,40, 60~63	: 2SC2412K	
Q4~25	: 2SC2412KLN	
Q27,31~34	: 2SD1757K	
Q28	: 2SB941	
Q50	: DTC144EK	
Q51,65	: DTA114EK	
D1,5,7~9,11~13,15~19, 21,23,39,40		: 1SS176
D2,3,6		: AM01Z
D4,10		: RD10JS(B2)

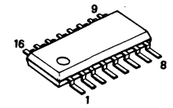
2SC1740S



2SA1428
2SD1858

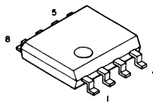


UPD4052BG

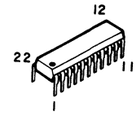


DTA114EK
DTA144EK
DTB123YK
DTC124EK
DTC144EK
2SA1037K
2SC2412K
2SD1757K

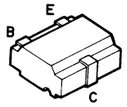
NJM4565M
NJM4565MD
NJM4580ED



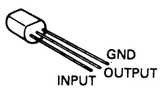
LC7523M



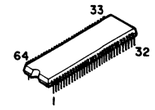
2SC2412KLN



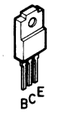
PST520D-T



UPD75108CW-X03

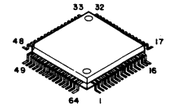


2SB1370
2SB941



DA204K

LC7582A



DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

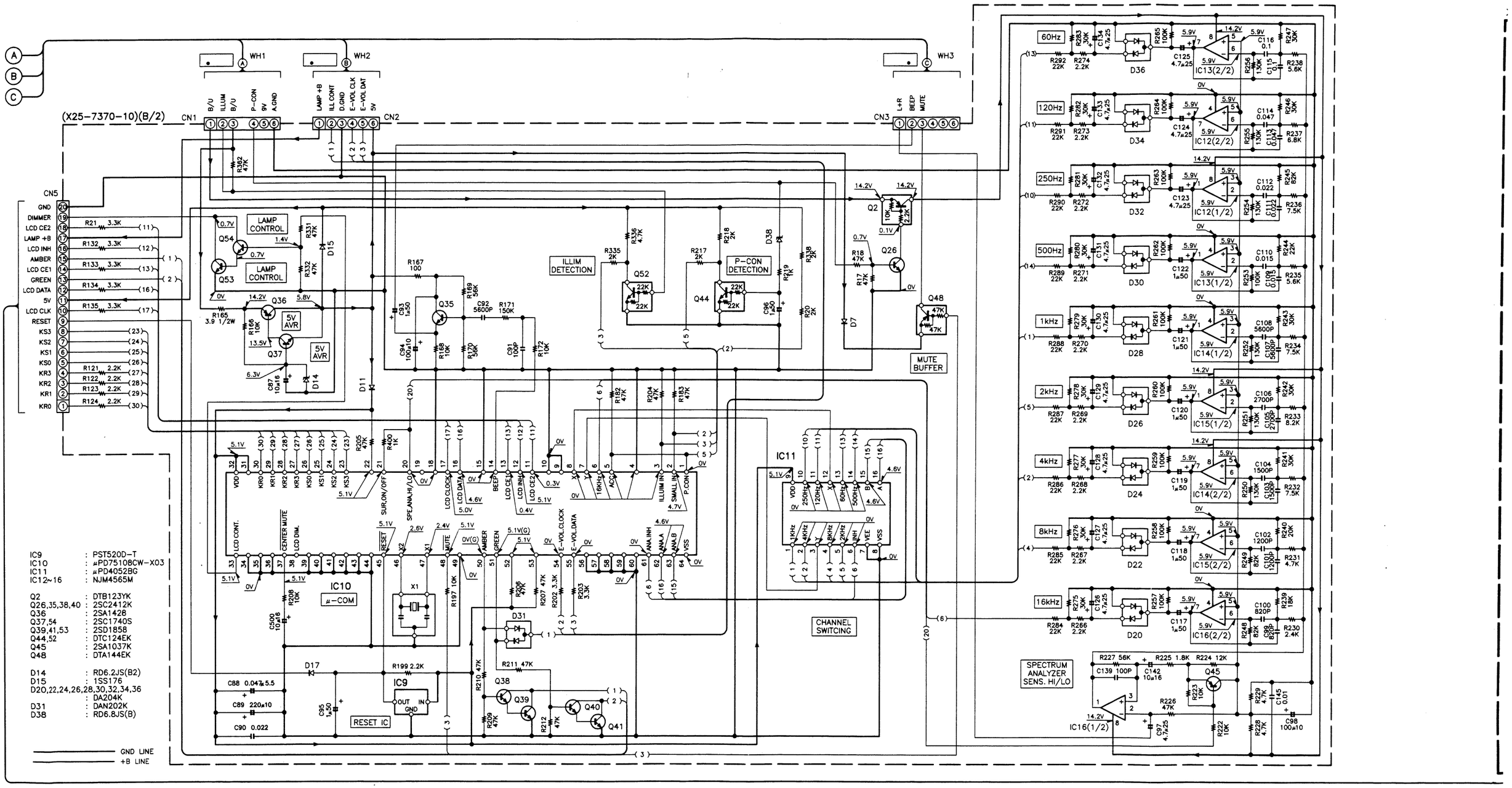
Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

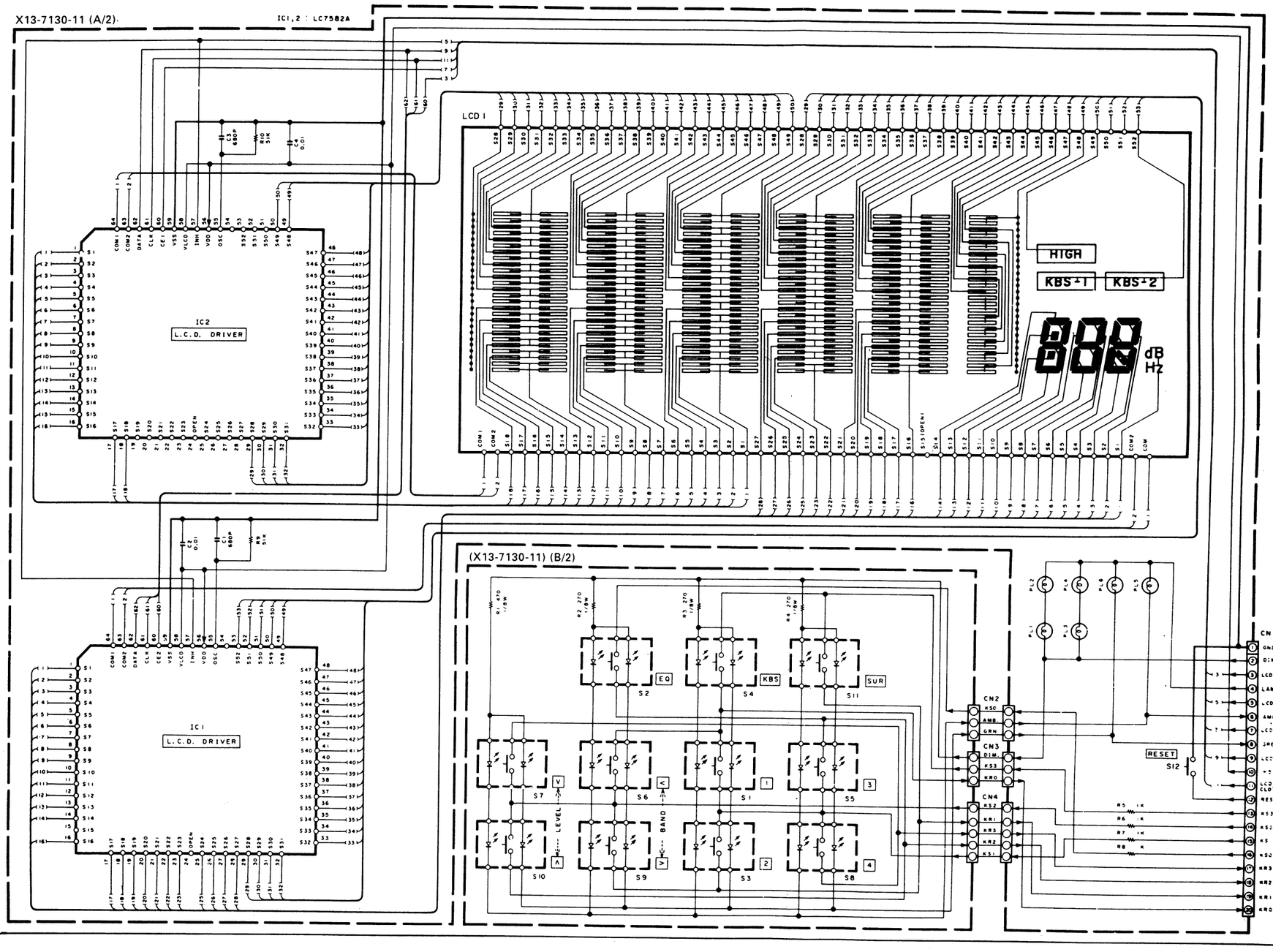
Y09-6070-10

KGC-7043

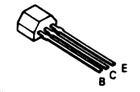
KENWOOD


(X25-7370-10)(B/2)
CN1
CN2
CN3
CN5
WH1
WH2
WH3
B/U
ILLUM B/U
P-CON
9V
A.GND
LAMP +B
ILL CONT
D.GND
E-VOL CLK
E-VOL DAT
5V
L+R
BEEP
MUTE
GND
DIMMER
LCD CE2
LAMP +B
LCD INH
AMBER
LCD CE1
GREEN
LCD DATA
5V
LCD CLK
RESET
KS3
KS2
KS1
KS0
KR3
KR2
KR1
KR0
LAMP CONTROL
Q54
Q53
Q36
Q37
5V AVR
ILLIM DETECTION
P-CON DETECTION
Q52
Q44
Q35
Q2
Q26
Q48
MUTE BUFFER
D7
D38
D11
D15
D14
D17
D31
IC10
μ-COM
X1
IC9
RESET IC
IC11
CHANNEL SWITCING
SPECTRUM ANALYZER SENS. HI/LO
60Hz
120Hz
250Hz
500Hz
1kHz
2kHz
4kHz
8kHz
16kHz
D36
D34
D32
D30
D28
D26
D24
D22
D20
IC13(2/2)
IC12(2/2)
IC12(1/2)
IC13(1/2)
IC14(1/2)
IC15(1/2)
IC14(2/2)
IC15(2/2)
IC16(2/2)
IC16(1/2)
VDD
VSS
VEE
SUR.ON/OFF
SPE.ANA.H/L
LCD CLOCK
LCD DATA
LCD CE1
LCD INH
LCD CE2
16kHz
ACOM
ILLUM IN
SMALL IN
P.CON
LCD CONT.
CENTER MUTE
LCD DIM.
RESET
MUTE
GREEN
E-VOL.CLOCK
E-VOL.DATA
ANA.INH
ANA.A
ANA.B
IC9 : PST520D-T
IC10 : μPD75108CW-X03
IC11 : μPD4052BG
IC12~16 : NJM4565M
Q2 : DTB123YK
Q26,35,38,40 : 2SC2412K
Q36 : 2SA1428
Q37,54 : 2SC1740S
Q39,41,53 : 2SD1858
Q44,52 : DTC124EK
Q45 : 2SA1037K
Q48 : DTA144EK
D14 : RD6.2JS(B2)
D15 : 1SS176
D20,22,24,26,28,30,32,34,36 : DA204K
D31 : DAN202K
D38 : RD6.8JS(B)
GND LINE
+B LINE

KGC-7043(K)(2/2)

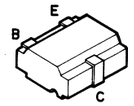


2SC1740S

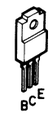


DTA114EK
DTA144EK
DTB123YK
DTC124EK
DTC144EK
2SA1037K
2SC2412K
2SD1757K

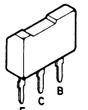
2SC2412KLN



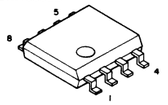
2SB1370
2SB941



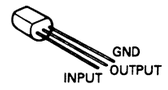
2SA1428
2SD1858



NJM4565M
NJM4565MD
NJM4580ED

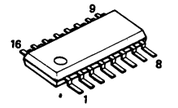


PST520D-T

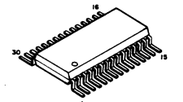


UPD4052BG

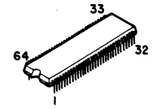
DA204K



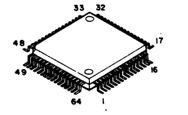
LC7523M



UPD75108CW-X03



LC7582A



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DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or/and units.

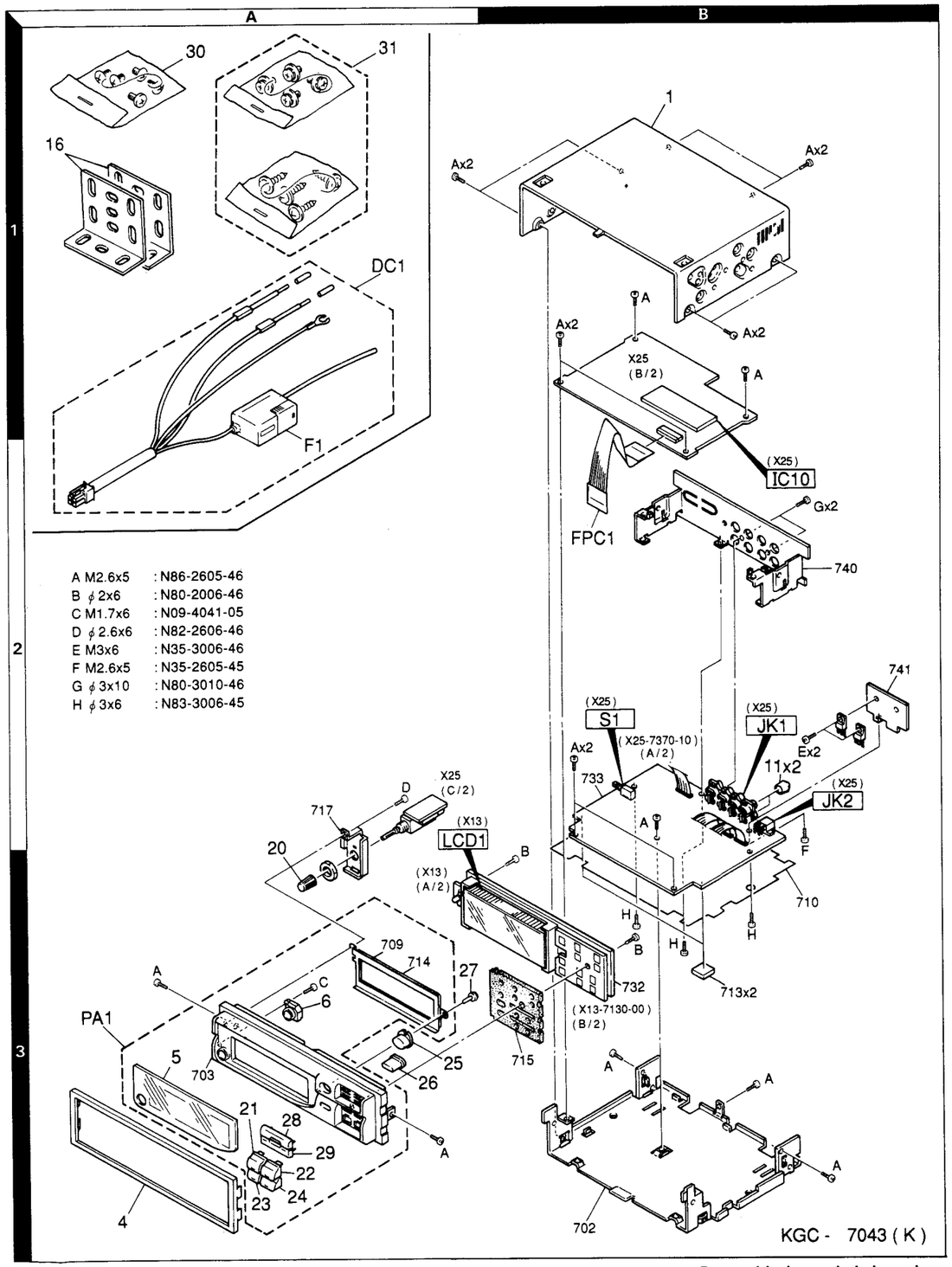
Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance sans signal d'entrée. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser ohne Eingangssignal gemessen. Dabei schwanden die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig.

3(K)(2/2)

KGC-7043
KENWOOD

EXPLODED VIEW



A M2.6x5 : N86-2605-46
B ϕ2x6 : N80-2006-46
C M1.7x6 : N09-4041-05
D ϕ2.6x6 : N82-2606-46
E M3x6 : N35-3006-46
F M2.6x5 : N35-2605-45
G ϕ3x10 : N80-3010-46
H ϕ3x6 : N83-3006-45

Parts with the exploded numbers larger than 700 are not supplied.

PARTS LIST

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
KGC-7043						
1	1B	*	A01-2589-02	METALLIC CABINET		
PA1	3A	*	A64-0500-03	PANEL ASSY		
4	3A		B07-2027-05	ESCUTCHEON		
5	3A	*	B10-1598-03	FRONT GLASS		
6	3A		B19-0864-14	LIGHTING BOARD		
-			B46-0100-30	WARRANTY CARD		
-			B46-0172-03	QUESTIONAIRE CARD		
-			B58-0325-04	CAUTION CARD (FUSE)		
-			B58-1213-04	CAUTION CARD (EIA)		
-		*	B64-0511-00	INSTRUCTION MANUAL		
DC1	2A		E30-3849-15	DC CORD		
FPC1	2B		E39-0061-05	FLAT CABLE		
11	2B		F29-0049-05	INSULATING COVER		
F1	2A		F06-3026-05	FUSE(3A)		
-			H10-4400-12	POLYSTYRENE FOAMED FIXTURE		
-			H12-2516-04	CARTON BOARD		
-			H25-0337-04	PROTECTION BAG (180X300X0.03)		
-			H25-0340-04	PROTECTION BAG (300X350X0.03)		
-		*	H54-0356-04	ITEM CARTON CASE		
-		*	H64-0394-04	OUTER CARTON CASE		
16	1A		J21-3437-04	MOUNTING HARDWARE		
20	2A		K23-1010-34	KNOB (FAD)		
21	3A		K24-1071-03	KNOB (1)		
22	3A		K24-1072-03	KNOB (2)		
23	3A		K24-1073-03	KNOB (3)		
24	3A		K24-1074-03	KNOB (4)		
25	3A		K24-1075-04	KNOB (EQ/ANA)		
26	3A		K24-1076-04	KNOB (KBS)		
27	3B		K24-1078-04	KNOB (RESET)		
28	3A		K25-0611-03	KNOB (BAND)		
29	3A		K25-0612-03	KNOB (LEVEL)		
30	1A		N99-1559-05	SCREW SET		
31	1A	*	N99-1623-05	SCREW SET		
A	1B		N86-2605-46	BINDING HEAD TAPTITE SCREW		
B	3B		N80-2006-46	PAN HEAD TAPTITE SCREW		
C	3A		N09-4041-05	SEMS (TAPTITE SCREW)(1.7X6)		
D	2A		N82-2606-46	BINDING HEAD TAPTITE SCREW		
SWITCH UNIT (X13-7130-11)						
-			B19-0863-04	LIGHTING BOARD		
LCD1	3A	*	B38-0627-05	LIQUID CRYSTAL		
PL1 -4			B30-1323-05	LAMP (5.5V 0.125A)		
PL5		*	B30-1375-05	LAMP		
PL6		*	B30-1374-05	LAMP		
C1			CK73EB1H681K	CHIP C 680PF K		
C2			CK73EB1H103K	CHIP C 0.010UF K		
C3			CK73EB1H681K	CHIP C 680PF K		
C4			CK73EB1H103K	CHIP C 0.010UF K		
CN1			E40-9180-05	FLAT CABLE CONNCTOR		
CN2 ,3		*	E40-9239-05	PIN ASSY		

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E:Europe
M:Other Areas

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CN4		*	E40-9253-05	PIN ASSY		
R1			RK73EB2B471J	CHIP R 470 J 1/8W		
R2 -4			RK73EB2B271J	CHIP R 270 J 1/8W		
R5 -8			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R9 ,10			RK73EB2B513J	CHIP R 51K J 1/8W		
S1 -11			S70-0805-05	TACT SWITCH		
S12			S40-1096-05	PUSH SWITCH		
IC1 ,2			LC7582A	IC(LCD DRIVER)		
ELECTRIC UNIT (X25-7370-10)						
C1 ,2			CE04DW1H2R2M	ELECTRO 2.2UF 50WV		
C4			CE04DW1H010M	ELECTRO 1.0UF 50WV		
C5 ,6			CE04DW1A101M	ELECTRO 100UF 10WV		
C7			CE04DW1C100M	ELECTRO 10UF 16WV		
C8 ,9			CK73FB1H103K	CHIP C 0.010UF K		
C10 ,11			CE04DW1H010M	ELECTRO 1.0UF 50WV		
C12 ,13			CE04DW1HR33M	ELECTRO 0.33UF 50WV		
C14 ,15			CE04CW1HR15M	ELECTRO 0.15UF 50WV		
C16 ,17			CE04DW1HOR1M	ELECTRO 0.1UF 50WV		
C18 ,19			CK73EB1E683K	CHIP C 0.068UF K		
C20 ,21			CK73EB1E333K	CHIP C 0.033UF K		
C22 ,23			CK73EB1H223K	CHIP C 0.022UF K		
C24 ,25			CK73FB1H103K	CHIP C 0.010UF K		
C26 ,27			CK73FB1H562K	CHIP C 5600PF K		
C28 ,29			CK73FB1H332K	CHIP C 3300PF K		
C30 ,31			CK73FB1H222K	CHIP C 2200PF K		
C32 ,33			CK73EB1E104K	CHIP C 0.10UF K		
C34 ,35			CK73EB1E823K	CHIP C 0.082UF K		
C36 ,37			CK73EB1E683K	CHIP C 0.068UF K		
C38 ,39			CK73FB1E333KTA	CHIP C 0.033UF K		
C40 ,41			CK73EB1H223K	CHIP C 0.022UF K		
C42 ,43			CK73FB1H153K	CHIP C 0.015UF K		
C44 ,45			CK73FB1H103K	CHIP C 0.010UF K		
C46 ,47			CK73FB1H472K	CHIP C 4700PF K		
C48 ,49			CK73FB1H222K	CHIP C 2200PF K		
C50 ,51			CK73FB1H182K	CHIP C 1800PF K		
C52 ,53			CK73FB1H471K	CHIP C 470PF K		
C54 -63			CE04DW1H2R2M	ELECTRO 2.2UF 50WV		
C64 ,65			CE04DW1H010M	ELECTRO 1.0UF 50WV		
C66 ,67			CC73FCH1H101J	CHIP C 100PF J		
C69 ,70			CE04DW1H010M	ELECTRO 1.0UF 50WV		
C71 ,72			CE04DW1HOR1M	ELECTRO 0.1UF 50WV		
C73 ,74			CE04DW1C100M	ELECTRO 10UF 16WV		
C77 -80			CK73FB1H472K	CHIP C 4700PF K		
C81 -84			CE04DW1C102M	ELECTRO 1000UF 16WV		
C85			CE04DW1C220M	ELECTRO 22UF 16WV		
C86			CE04DW1A221M	ELECTRO 220UF 10WV		
C87			CE04DW1C100M	ELECTRO 10UF 16WV		
C88			C90-1827-05	ELECTRO 0.047UF 5.5WV		
C89			CE04DW1A221M	ELECTRO 220UF 10WV		
C90			CK73EB1H223K	CHIP C 0.022UF K		
C91			CC73FCH1H101J	CHIP C 100PF J		
C92			CK73FB1H562K	CHIP C 5600PF K		
C93			CE04DW1H010M	ELECTRO 1.0UF 50WV		

K:U.S.A. and Canada
E:Europe
M:Other Areas

⚠ indicates safety critical components.

KGC-7043

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C94			CE04DW1A101M	ELECTRO 100UF 10WV		
C95 ,96			CE04DW1H010M	ELECTRO 1.0UF 50WV		
C97			CE04DW1E4R7M	ELECTRO 4.7UF 25WV		
C98			CE04DW1A101M	ELECTRO 100UF 10WV		
C99 ,100			CK73FB1H821K	CHIP C 820PF K		
C101,102			CK73EB1H122K	CHIP C 1200PF K		
C103,104			CK73EB1H152K	CHIP C 1500PF K		
C105,106			CK73EB1H272K	CHIP C 2700PF K		
C107,108			CK73EB1H562K	CHIP C 5600PF K		
C109,110			CK73EB1H153K	CHIP C 0.015UF K		
C111,112			CK73EB1H223K	CHIP C 0.022UF K		
C113,114			CK73EB1H473K	CHIP C 0.047UF K		
C115,116			CK73EB1E104K	CHIP C 0.10UF K		
C117-122			CE04DW1H010M	ELECTRO 1.0UF 50WV		
C123-134			CE04DW1E4R7M	ELECTRO 4.7UF 25WV		
C135,136			CC73FCH1H101J	CHIP C 100PF J		
C137,138			CE04DW1H010M	ELECTRO 1.0UF 50WV		
C139			CC73FCH1H101J	CHIP C 100PF J		
C141			CE04DW1A101M	ELECTRO 100UF 10WV		
C142			CE04DW1C100M	ELECTRO 10UF 16WV		
C145			CK73FB1H103K	CHIP C 0.010UF K		
C151,152			CE04DW1HOR1M	ELECTRO 0.1UF 50WV		
C153,154			CE04DW1H010M	ELECTRO 1.0UF 50WV		
C161			CE04DW1H010M	ELECTRO 1.0UF 50WV		
C164,165			CE04DW1C100M	ELECTRO 10UF 16WV		
C167-170			CC73FCH1H101J	CHIP C 100PF J		
C300			CE04DW1C100M	ELECTRO 10UF 16WV		
C353,354			CE04DW1C220M	ELECTRO 22UF 16WV		
C355			CK73FB1H472K	CHIP C 4700PF K		
C356			CE04DW1C100M	ELECTRO 10UF 16WV		
C357			CE04DW1H010M	ELECTRO 1.0UF 50WV		
C358			CE04DW1HR47M	ELECTRO 0.47UF 50WV		
C359			CC73FCH1H101J	CHIP C 100PF J		
C360			CE04DW1C100M	ELECTRO 10UF 16WV		
C500			CE04DW1C100M	ELECTRO 10UF 16WV		
C501,502			CE04DW1A101M	ELECTRO 100UF 10WV		
C503,504			CC73FCH1H471J	CHIP C 470PF J		
C505,506			CC73FSL1H102J	CHIP C 1000PF J		
CN1 -3			E40-9124-05	FLAT CABLE CONNCTOR		
CN4			E40-9004-05	PIN ASSY		
CN5			E40-5281-05	FLAT CABLE CONNCTOR		
JK1			E13-0825-05	RCA PIN JACK		
JK2			E08-0413-05	RECTANGULAR RECEPTACLE		
WH1 -3			E31-8107-05	LEAD WIRE		
WH4			E31-8185-05	WIRING HARNESS		
X1			L78-0267-05	RESONATOR (4.19MHZ)		
E		2B	N35-3006-46	BINDING HEAD MACHINE SCREW		
F		2B	N35-2605-45	BINDING HEAD MACHINE SCREW		
G		2B	N80-3010-46	PAN HEAD TAPTITE SCREW		
H		3B	N83-3006-45	PAN HEAD TAPTITE SCREW		
CP1 -4			R90-0491-05	MULTI-COMP 820KX7 J 1/6W		
R1 ,2			RK73FB2A512J	CHIP R 5.1K J 1/10W		
R3 ,4			RK73FB2A103J	CHIP R 10K J 1/10W		

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R5 ,6			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R7 ,8			RK73FB2A242J	CHIP R 2.4K J 1/10W		
R9 -16			R92-2033-05	CHIP RD R 5.1K D 1/10W		
R17 ,18			RK73FB2A473J	CHIP R 47K J 1/10W		
R19			RK73EB2B100J	CHIP R 10 J 1/8W		
R20			RK73FB2A202J	CHIP R 2.0K J 1/10W		
R21			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R22			RD14DB2H2R2J	SMALL-RD 2.2 J 1/2W		
R27 -30			RK73EB2B224J	CHIP R 220K J 1/8W		
R31 -36			RK73EB2B184J	CHIP R 180K J 1/8W		
R37 -44			RK73EB2B224J	CHIP R 220K J 1/8W		
R45 -48			RK73EB2B184J	CHIP R 180K J 1/8W		
R49 -58			RK73EB2B331J	CHIP R 330 J 1/8W		
R59 ,60			RK73FB2A391J	CHIP R 390 J 1/10W		
R61 ,62			RK73FB2A331J	CHIP R 330 J 1/10W		
R63 -66			RK73FB2A561J	CHIP R 560 J 1/10W		
R67 ,68			RK73FB2A391J	CHIP R 390 J 1/10W		
R69 ,70			RK73FB2A561J	CHIP R 560 J 1/10W		
R71 ,72			RK73EB2B752J	CHIP R 7.5K J 1/8W		
R73 -92			RK73EB2B622J	CHIP R 6.2K J 1/8W		
R93 -100			RK73FB2A224J	CHIP R 220K J 1/10W		
R101,102			RK73FB2A622J	CHIP R 6.2K J 1/10W		
R103,104			RK73FB2A104J	CHIP R 100K J 1/10W		
R105,106			R92-2071-05	CHIP R 6.2K D 1/10W		
R107,108			RK73FB2A333J	CHIP R 33K J 1/10W		
R109,110			RK73FB2A474J	CHIP R 470K J 1/10W		
R111,112			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R113,114			RK73FB2A333J	CHIP R 33K J 1/10W		
R115,116			RK73FB2A681J	CHIP R 680 J 1/10W		
R117-120			RK73FB2A474J	CHIP R 470K J 1/10W		
R125,126			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R127,128			RK73FB2A333J	CHIP R 33K J 1/10W		
R129			RK73FB2A474J	CHIP R 470K J 1/10W		
R130,131			RK73FB2A681J	CHIP R 680 J 1/10W		
R132-135			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R140			RK73FB2A474J	CHIP R 470K J 1/10W		
R141,142			RK73EB2B471J	CHIP R 470 J 1/8W		
R147,148			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R151,152			RK73EB2B683J	CHIP R 68K J 1/8W		
R153,154			RK73EB2B471J	CHIP R 470 J 1/8W		
R159,160			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R163,164			RK73EB2B683J	CHIP R 68K J 1/8W		
R165			RD14DB2H3R9J	SMALL-RD 3.9 J 1/2W		
R167			RK73FB2A101J	CHIP R 100 J 1/10W		
R168			RK73FB2A103J	CHIP R 10K J 1/10W		
R169,170			RK73FB2A563J	CHIP R 56K J 1/10W		
R171			RK73FB2A154J	CHIP R 150K J 1/10W		
R172			RK73EB2B103J	CHIP R 10K J 1/8W		
R182,183			RK73FB2A473J	CHIP R 47K J 1/10W		
R197			RK73FB2A103J	CHIP R 10K J 1/10W		
R202,203			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R204			RK73FB2A473J	CHIP R 47K J 1/10W		
R205-207			RK73EB2B473J	CHIP R 47K J 1/8W		
R208			RK73FB2A103J	CHIP R 10K J 1/10W		
R209-212			RK73FB2A473J	CHIP R 47K J 1/10W		

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
R217,218			RK73FB2A202J	CHIP R 2.0K J 1/10W		
R219			RK73EB2B102J	CHIP R 1.0K J 1/8W		
R222,223			RK73FB2A103J	CHIP R 10K J 1/10W		
R224			RK73FB2A123J	CHIP R 12K J 1/10W		
R225			RK73FB2A182J	CHIP R 1.8K J 1/10W		
R226			RK73FB2A473J	CHIP R 47K J 1/10W		
R227			RK73FB2A563J	CHIP R 56K J 1/10W		
R228,229			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R230			RK73FB2A242J	CHIP R 2.4K J 1/10W		
R232			RK73EB2B752J	CHIP R 7.5K J 1/8W		
R234			RK73FB2A752J	CHIP R 7.5K J 1/10W		
R239			RK73FB2A183J	CHIP R 18K J 1/10W		
R240			RK73EB2B203J	CHIP R 20K J 1/8W		
R241-243			RK73EB2B303J	CHIP R 30K J 1/8W		
R244			RK73EB2B223J	CHIP R 22K J 1/8W		
R245			RK73EB2B823J	CHIP R 82K J 1/8W		
R246,247			RK73EB2B303J	CHIP R 30K J 1/8W		
R248			RK73FB2A823J	CHIP R 82K J 1/10W		
R249			RK73EB2B823J	CHIP R 82K J 1/8W		
R250-252			RK73EB2B134J	CHIP R 130K J 1/8W		
R253			RK73EB2B104J	CHIP R 100K J 1/8W		
R254-256			RK73EB2B134J	CHIP R 130K J 1/8W		
R257			RK73FB2A104J	CHIP R 100K J 1/10W		
R258			RK73EB2B104J	CHIP R 100K J 1/8W		
R259,260			RK73FB2A104J	CHIP R 100K J 1/10W		
R261,262			RK73EB2B104J	CHIP R 100K J 1/8W		
R263			RK73FB2A104J	CHIP R 100K J 1/10W		
R264			RK73EB2B104J	CHIP R 100K J 1/8W		
R265			RK73FB2A104J	CHIP R 100K J 1/10W		
R266			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R267-274			RK73EB2B222J	CHIP R 2.2K J 1/8W		
R275-283			RK73FB2A303J	CHIP R 30K J 1/10W		
R284			RK73FB2A223J	CHIP R 22K J 1/10W		
R285-287			RK73EB2B223J	CHIP R 22K J 1/8W		
R288			RK73FB2A223J	CHIP R 22K J 1/10W		
R289-292			RK73EB2B223J	CHIP R 22K J 1/8W		
R295			RD14DB2H2R2J	SMALL-RD 2.2 J 1/2W		
R296			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R311			RK73FB2A152J	CHIP R 1.5K J 1/10W		
R313			RK73FB2A302J	CHIP R 3.0K J 1/10W		
R315			RK73FB2A512J	CHIP R 5.1K J 1/10W		
R319			RK73FB2A302J	CHIP R 3.0K J 1/10W		
R321			RK73FB2A471J	CHIP R 470 J 1/10W		
R323			RK73FB2A302J	CHIP R 3.0K J 1/10W		
R325			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R326			RK73FB2A182J	CHIP R 1.8K J 1/10W		
R335			RK73FB2A202J	CHIP R 2.0K J 1/10W		
R336			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R338			RK73FB2A202J	CHIP R 2.0K J 1/10W		
R339			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R340			RK73FB2A562J	CHIP R 5.6K J 1/10W		
R342-345			RK73FB2A101J	CHIP R 100 J 1/10W		
R347			RK73FB2A101J	CHIP R 100 J 1/10W		
R349			RK73FB2A223J	CHIP R 22K J 1/10W		
R354,355			RK73FB2A332J	CHIP R 3.3K J 1/10W		

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R362			RK73FB2A473J	CHIP R 47K J 1/10W		
R400			RK73EB2B102J	CHIP R 1.0K J 1/8W		
R501,502			RK73FB2A123J	CHIP R 12K J 1/10W		
VR1		*	R31-0204-05	VARIABLE RESISTOR		
W301-326			R92-2052-05	CHIP R 0 J 1/10W		
W401			R92-2053-05	CHIP R 0 J 1/8W		
W403-441			R92-2053-05	CHIP R 0 J 1/8W		
W453			R92-2052-05	CHIP R 0 J 1/10W		
S1			S40-2162-05	PUSH SWITCH		
D1			1SS176	DIODE		
D2 ,3			AM01Z	DIODE		
D4			RD10JS(B2)	ZENER DIODE		
D5			1SS176	DIODE		
D6			AM01Z	DIODE		
D7 -9			1SS176	DIODE		
D10			RD10JS(B2)	ZENER DIODE		
D11 -13			1SS176	DIODE		
D14			RD6.2JS(B2)	ZENER DIODE		
D15 -19			1SS176	DIODE		
D20			DA204K	DIODE		
D21			1SS176	DIODE		
D22			DA204K	DIODE		
D23			1SS176	DIODE		
D24			DA204K	DIODE		
D26			DA204K	DIODE		
D28			DA204K	DIODE		
D30			DA204K	DIODE		
D31			DAN202K	DIODE		
D32			DA204K	DIODE		
D34			DA204K	DIODE		
D36			DA204K	DIODE		
D38			RD6.8JS(B)	ZENER DIODE		
D39 ,40			1SS176	DIODE		
IC1 ,2			NJM4580ED	CUSTOM IC		
IC3 ,4			LC7523M	IC(7CH GRAPHIC EQUALIZER)		
IC5			NJM4565MD	IC(OP AMP X2)		
IC7 ,8			NJM4565MD	IC(OP AMP X2)		
IC9			PST520D-T	IC(LOW POWER RESET)		
IC10			UPD75108CW-X03	MI-COM IC		
IC11			UPD4052BG	IC(4CH MPX/ DE-MPX)		
IC12-16			NJM4565M	IC(OP AMP X2)		
IC17,18			NJM4565MD	IC(OP AMP X2)		
Q1			2SB1370	TRANSISTOR		
Q2			DTB123YK	DIGITAL TRANSISTOR		
Q3			2SC2412K	TRANSISTOR		
Q4 -25			2SC2412KLN	TRANSISTOR		
Q26			2SC2412K	TRANSISTOR		
Q27			2SD1757K	TRANSISTOR		
Q28			2SB941	TRANSISTOR		
Q29			2SC2412K	TRANSISTOR		
Q31 -34			2SD1757K	TRANSISTOR		
Q35			2SC2412K	TRANSISTOR		
Q36			2SA1428	TRANSISTOR		
Q37			2SC1740S	TRANSISTOR		

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Q38			2SC2412K	TRANSISTOR		
Q39			2SD1858	TRANSISTOR		
Q40			2SC2412K	TRANSISTOR		
Q41			2SD1858	TRANSISTOR		
Q44			DTC124EK	DIGITAL TRANSISTOR		
Q45			2SA1037K	TRANSISTOR		
Q48			DTA144EK	DIGITAL TRANSISTOR		
Q50			DTC144EK	DIGITAL TRANSISTOR		
Q51			DTA114EK	DIGITAL TRANSISTOR		
Q52			DTC124EK	DIGITAL TRANSISTOR		
Q53			2SD1858	TRANSISTOR		
Q54			2SC1740S	TRANSISTOR		
Q60 -63			2SC2412K	TRANSISTOR		
Q65			DTA114EK	DIGITAL TRANSISTOR		

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